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| Date: | APRIL 6, 2004 |
| To: | EXAMINER WAMSLEY<br>U.S. PATENT AND TRADEMARK OFFICE |
| Fax #: | (703) 872-9319 |
| From: | LESLIE B. WILSON |
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| Client/Matter No.: | IT 010006 (7790/226) |
| # of Pages:<br>(including cover sheet) | 53 |

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# TRANSMITTAL FORM

*(to be used for all correspondence after initial filing)*

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| Attorney Docket No. | IT 010006 (7790/226) |
| Application Number | 10/070,867 |
| Filing Date | MARCH 12, 2002 |
| First Named Inventor | MARIA G MARTINI |
| Group Art Unit | 2819 |
| Examiner | WAMSLEY, PATRICK G |

## ENCLOSURES *(check all that apply)*

| | | |
|---|---|---|
| ☐ Amendment | ☐ Assignment Papers *(for an Application)* | ☐ Appeal Communication to Board of Appeals and Interferences |
| ☐ After Final | ☐ Drawings. | ☒ Appeal Brief |
| ☐ Affidavits/declaration(s) | ☐ After Allowance Communication to Group | |
| | ☐ Petition Routing Slip (PTO/SB/69) and Accompanying Petition | ☐ Proprietary Information |
| ☐ Status Letter | ☐ To Convert a Provisional Application | ☐ Post Card Receipt |
| ☒ **One-Month Petition for Extension of Time Request (duplic)** | ☐ Power of Attorney, Revocation Change of Correspondence Address | ☐ Additional Enclosure(s) *(please identify below).* |
| ☐ Express Abandonment Request | ☐ Terminal Disclaimer | ☐ |
| ☐ Information Disclosure Statement, PTO-1449, 3rt | ☐ Small Entity Statement | ☐ |
| ☐ Certified Copy of Priority Document(s) | ☐ Request of Refund | ☐ |
| ☐ Response to Missing Parts/ Incomplete Application | | |

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|---|---|---|---|---|---|---|---|---|---|
| Total | | Minus | | 0 | x $9= | 0 | | x $18= | |
| Indep | | Minus | | 0 | x $43 | 0 | | x $86 | |
| First Presentation of Multiple Dep. Claim | | | | | +$145 | --- | | +$290= | |
| | | | | | total add'l fee | $ 0 | | total add'l fee | $ |

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

| | | | |
|---|---|---|---|
| Firm or Individual name | LESLIE B WILSON<br>Registration No 33,816<br>CARDINAL LAW GROUP<br>1603 Orrington Avenue, Suite 2000<br>Evanston, IL 60201 | | |
| Signature | | Date | April 6, 2004 |

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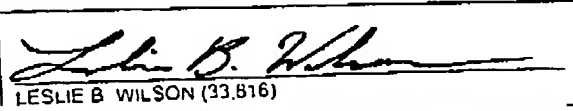
| Signature |  <br>LESLIE B WILSON (33,816) | Date | April 6, 2004 |

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| Group Art Unit | 2819 |
| Examiner | WAMSLEY PATRICK G. |

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| ☐ Status Letter | ☐ To Convert a Provisional Application | ☐ Post Card Receipt |
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| Total | | Minus | | 0 |
| Indep | | Minus | | 0 |
| First Presentation of Multiple Dep. Claim | | | | |

| Small Entity Rate | Addl Fee | or | Large Entity Rate | Addl Fee |
|---|---|---|---|---|
| x $9= | 0 | | x $18= | |
| x $43 | 0 | | x $86 | |
| +$145 | --- | | + $250= | |
| total addl fee | $ 0 | | total addl fee | $ |

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

| | |
|---|---|
| Firm or Individual name | LESLIE B WILSON<br>Registration No 33,816<br>CARDINAL LAW GROUP<br>1603 Orrington Avenue, Suite 2000<br>Evanston, IL 60201 |
| Signature | Date April 6, 2004 |

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Date April 6, 2004

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PATENT
Case No.: IT 010006
(7790/226)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re patent application of:

MARIA G. MARTINI, ET AL.

Serial No.: 10/070,867

Filed: MARCH 12, 2002

For: CODING A DATA STREAM

Examiner: WAMSLEY, P.

Group Art Unit: 2819

## APPEAL BRIEF

Mail Stop **Appeal Brief - Patents**
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Appellant herewith respectfully presents its Brief on Appeal as follows:

1. REAL PARTY IN INTEREST

The real party in interest is Koninklijke Philips Electronics N.V., a corporation of The Netherlands having an office and a place of business at Groenewoudseweg 1, Eindhoven, Netherlands 5621 BA. Koninklijke Philips Electronics N.V. is the ultimate parent of the assignee of record Philips Electronics North America Corporation, a Delaware corporation having an office and a place of business at 1251 Avenue of the Americas, New York, NY 10020-1104. Philips Electronics North America Corporation intends to further assign this application to Koninklijke Philips Electronics N.V.

2. RELATED APPEALS AND INTERFERENCES

Appellant and the undersigned attorney are not aware of any other appeals or interferences which will directly affect or be directly affected by or having a bearing on the Board's decision in the pending appeal.

3. STATUS OF CLAIMS

Claims 1-13 are currently pending in the application and are the claims on appeal. See, the Appendix. Claims 1-13 stand finally rejected under 35 U.S.C. §112, ¶1 as failing to comply with the enablement requirement. Claims 1-13 also stand finally rejected under 35 U.S.C. §103(a) as being unpatentable over a publication entitled "MPEG-4 Overview - (Dublin Version)" to *Koenen* in view of U.S. patent No. 3,996,558 to *Heun*.

4. STATUS OF AMENDMENTS

A reply under 37 C.F.R. §1.116 involving arguments directed to an enabling description of claims 1-13 and an allowance of claims 1-13 over *Koenen* in view of *Heun* was filed on 01/06/2004, but was not entered into the present application by Examiner Wamsley.

5. SUMMARY OF THE INVENTION

The present application discloses a method of coding a given part of a data stream. As will be further explained herein, the given part of the data stream includes partitions coded with different error protection rates to obtain a coded data stream, which includes a single length information field concerning the respective lengths of the partitions of the given part of the data stream. The coded data stream can be extended with additional coded parts, wherein each additional coded part includes its own partitions coded with different error protection rates and a single length information field concerning the respective lengths of its coded partitions. Thus, a complete coding of a data stream consisting of N given parts in accordance with the present application will result in a coded data stream consisting of N given parts wherein each part of the coded data stream includes its own partitions coded with different error protection rates and a single length information field concerning the respective lengths of its partitions. As such, the coded data stream will have a total of N single length information fields.

Specifically, in FIG. 3 of the present application, a first marker H5 (i.e., a resynch marker) represents a start of a first given part of a data stream S1 having partitions ℓ1, ℓ2 and ℓ3. A channel coding of partitions ℓ1, ℓ2 and ℓ3 with different error protection rates results in a coded data stream WS1 as illustrated. Coded data stream WS1 includes a single length information field lf after first marker H5 wherein single length information field lf concerns respective lengths of partitions ℓ1, ℓ2 and ℓ3 in coded data stream WS1. See, *U.S. Patent Application Serial No. 10/070,867* on page 5, line 11 to page 6, line 11.

Also in FIG. 3 of the present application, a second marker H5 represents a start of a second given part of data stream S1 having partitions which are not shown. Nonetheless, these partitions would be channel coded with different error protection rates to further extend coded data stream WS1 with a second given part having its own single length information field (not shown) after second marker H5 wherein the single length information field of the second given part of coded data stream WS1concerns respective lengths of partitions in the second given part.

In FIG. 6 of the present application, a marker H4 represents a start of a first given part of a data stream S2 having partitions (not shown). Adding a robustness to a marker H1, a marker H2 and first marker H4, and a channel coding of the partitions of the first given part of data stream S2 with different error protection rates results in a coded data stream WS2 as illustrated. Coded data stream WS2 includes a single length information

field lf after marker H4 wherein single length information field lf concerns respective lengths of partitions within the first given part of coded data stream WS2. See, *U.S. Patent Application Serial No. 10/070,867* on page 8, line 32 to page 9, line 15.

Also in FIG. 6 of the present application, a first marker H5 represents a start of a second given part of data stream S2 having partitions which are not shown. Nonetheless, robustness is added to marker H5 and the partitions of the second given part are channel coded with different error protection rates to further extend coded data stream WS2 with a second given part having its own single length information field lf after first marker H5 wherein the single length information field lf concerns respective lengths of partitions in the second given part of coded data stream WS2. This is repeated for the three additional markers H5 illustrated in FIG. 6.

For implementing the above method, the present application describes two embodiments of a transmitter employing a coder 11 wherein a coded data stream WS1 and WS2 are stored in a storage medium 15 as illustrated in FIGS. 4 and 7, respectively. See, *U.S Patent Application Serial No. 10/070,867* on page 6, lines 12-22; and page 9, lines 17-23. The present application also describes two embodiments of a receiver employing a decoder 31 wherein a coded data streams WS1 and WS2, respectively, are decoded to obtain data streams S1 and S2 as illustrated in FIGS. 5 and 8, respectively. See, *U.S. Patent Application Serial No. 10/070,867* on page 6, lines 23 to page 7, line 2; and page 9, lines 24-34.

6. ISSUE

Whether claims 1-13 are enabled and allowable over *Koenen* in view of *Heun*.

7. GROUPING OF CLAIMS

Claims 1-13 should be considered as one claim group.

8. ARGUMENTS

Enablement. The enablement requirement of 35 U.S.C. §112, ¶1 requires that the specification of *U.S. Patent Application Serial No. 10/070,867* describes how to make and how to use the invention as defined by claims 1-13. The Appellant respectfully traverses the enablement rejection of claims 1-13, because the present application unequivocally enables claims 1-13. Specifically, FIGS. 3 and 6 of the present application clearly discloses how to channel code the partitions of each given part of a data stream S1 and a data stream S2, respectively, to thereby yield coded data stream WS1 and coded data stream WS2, respectively, wherein each give part of the coded data streams WS1 and coded data stream WS2 includes its own single length information field. Unfortunately, Examiner Wamsley has continually and erroneously interpreted claims 1-13 to mean that a single information field is intended to encompass all of the partitions of the coded data stream instead of properly interpreting claims 1-13 to encompass partitions grouped within different parts of the data stream wherein each given part includes its own single length information field concerning the lengths its partitions.

Withdrawal of the rejection of claims 1-13 under 35 U.S.C. §112, ¶1 is therefore respectfully requested.

Obviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See, MPEP §2143. The Appellant asserts that the combination of *Koenen* and *Heun* fails to teach or suggest the following limitations of independent claims 1, 6, and 8-13:

1. "including (14, 20) a single length information field (lf) concerning respective lengths of the respective partitions in the coded data stream (WS1, WS2)" as recited in independent claim 1;

2 "the coded data stream further includes a single length information field (lf) concerning respective lengths of the respective partitions in the coded data stream", "reading (40) the length information field (lf)", and "channel decoding (31) the coded data stream (WS1, WS2) using the length information field (lf) to obtain a decoded data stream (S1, S2)" as recited in independent claim 6;

3. "means (14, 20) for including a single length information field (lf) concerning respective lengths of the respective partitions in the coded data stream (WS1, WS2)" as recited in independent claims 8 and 10;

4. "the coded data stream further including a single length information field (lf) concerning respective lengths of the respective partitions in the coded data stream", "means (40) for reading the length information field", and "means (31) for channel decoding the coded data stream (WS1, WS2) using the length information field (lf) to obtain a decoded data stream (S1, S2)" as recited in independent claims 9 and 11; and

5 "the coded data stream further comprising a single length information field (lf) concerning respective lengths of the respective partitions in the coded data stream" as recited in independent claims 12 and 13.

As to the traversal, Examiner Wamsley has correctly recognized the failure of *Koenen* to teach or suggest the aforementioned limitations of independent claims 1, 6, and 8-13. Furthermore, as illustrated in FIG. 1, *Heun* discloses an error detection and recovery scheme that includes a partition head 25 for each partition body 31 of a data stream stored on a magnetic tape, and not a partition head 25 for a group of partition bodies 31. Moreover, *Heun* teaches away from a single partition head 25 for a group of partitions bodies 31 by teaching an essential requirement of separating, not grouping, each partition body 31 by a partition gap 21. See, *Heun* at column 2, lines 19-38.

Withdrawal of the rejection of independent claims 1, 6 and 8-13 under 35 U.S.C. §103(a) as being unpatentable over *Koenen* in view of *Heun* is therefore respectfully requested.

Claims 2-5 depend from independent claim 1. Therefore, dependent claims 2-5 include all of the elements and limitations of independent claim 1. It is therefore respectfully submitted by the Appellant that dependent claims 2-5 are allowable over *Koenen* in view of *Heun* is therefore for at least the same reason as set forth with respect

to independent claim 1 being allowable over *Koenen* in view of *Heun*. Withdrawal of the rejection of dependent claims 2-5 under 35 U.S.C. §103(a) as being unpatentable over *Koenen* in view of *Heun* is therefore requested.

Claim 7 depends from independent claim 6. Therefore, dependent claim 7 includes all of the elements and limitations of independent claim 7. It is therefore respectfully submitted by the Appellant that dependent claim 7 is allowable over *Koenen* in view of *Heun* is therefore for at least the same reason as set forth with respect to independent claim 6 being allowable over *Koenen* in view of *Heun*. Withdrawal of the rejection of dependent claim 7 under 35 U.S.C. §103(a) as being unpatentable over *Koenen* in view of *Heun* is therefore requested.

Dated: April 6, 2004

Respectfully submitted,
MARIA G. MARTINI, *et al.*

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APPENDIX

1. A method of coding a data stream (S1,S2), the method comprising:

channel coding (11) respective partitions of a given part of the data stream with different error protection rates to obtain a coded data stream (WS1, WS2); and

including (14, 20) a single length information field (lf) concerning respective lengths of the respective partitions in the coded data stream (WS1, WS2).

2. The method as claimed in claim 1, wherein the length information field (lf) includes the lengths of the partitions before channel coding.

3. The method as claimed in claim 1, wherein the length information field (lf) includes the lengths of the partitions after channel coding.

4. The method as claimed in claim 1, wherein the length information field (lf) is included after a marker (H5) of the given part of the data stream (S1, S2).

5 The method as claimed in claim 1, wherein the data stream (S1, S2) includes at least one marker (H1... H5) out of a predetermined set of at least two mutually different markers (H1... H5), the marker indicating a start of a given part of the data stream, the method further comprising:

representing (13) the at least one marker (H1... H5) with a higher robustness word (WH1... WH5) having a higher robustness to channel errors than the at least one marker; and

outputting (14) the data stream with the at least one marker represented with the higher-robustness word (WH1.. WH5).

6. A method of decoding a coded data stream (WS1, WS2), in which coded data stream respective partitions of a given part of the coded data stream have been channel encoded with different error protection rates, the coded data stream further includes a single length information field (lf) concerning respective lengths of the respective partitions in the coded data stream, the method comprising:

reading (40) the length information field (lf); and

channel decoding (31) the coded data stream (WS1, WS2) using the length information field (lf) to obtain a decoded data stream (S1, S2).

7. The method as claimed in claim 6, further comprising:

deleting (40, 31, 34) the length information field (lf) from the coded data stream.

8. An encoder for coding a data stream (S1, S2), the encoder comprising:

a channel encoder (11) for channel coding respective partitions of a given part of the data stream with different error protection rates to obtain a coded data stream (WS1, WS2); and

means (14, 20) for including a single length information field (lf) concerning respective lengths of the respective partitions in the coded data stream (WS1, WS2).

9 A decoder for decoding a coded data stream (WS1, WS2), in which coded data stream respective partitions of a given part of the coded data stream have been channel encoded with different error protection rates, the coded data stream further including a single length information field (lf) concerning respective lengths of the respective partitions in the coded data stream, the decoder comprising:

means (40) for reading the length information field; and

means (31) for channel decoding the coded data stream (WS1, WS2) using the length information field (lf) to obtain a decoded data stream (S1, S2).

10. A transmitter for transmitting a coded data stream (WS1, WS2), the transmitter comprising:

an encoder for coding a data stream (S1, S2), the encoder including

a channel encoder (11) for channel coding respective partitions of a given part of the data stream with different error protection rates to obtain a coded data stream (WS1, WS2), and

means (14, 20) for including a single length information field (lf) concerning respective lengths of the respective partitions in the coded data stream (WS1, WS2); and

means (14) for transmitting the coded data stream (WS1, WS2).

11. A receiver for receiving a coded data stream (WS1, WS2), the receiver comprising:

means (30) for receiving the coded data stream; and

a decoder for decoding a coded data stream (WS1, WS2), in which coded data stream respective partitions of a given part of the coded data stream have been channel encoded with different error protection rates, the coded data stream further including a single length field information (lf) concerning respective lengths of the respective partitions in the coded data stream, the decoder including

means (40) for reading the length information field, and

means (31) for channel decoding the coded data stream (WS1, WS2) using the length information field (lf) to obtain a decoded data stream (S1, S2).

12. A coded data stream (WS1, WS2) in which respective partitions of a given part of the coded data stream have been channel encoded with different error protection rates, the coded data stream further comprising a single length information field (lf) concerning respective lengths of the respective partitions in the coded data stream.

13. A storage medium (15) on which a coded data stream (WS1, WS2) has been stored, the coded data stream having respective partitions of a given part of the coded data stream have been channel encoded with different error protection rates, the coded data stream further comprising a single length information field (lf) concerning respective lengths of the respective partitions in the coded data stream.